

III. NOTES ON SOME AMERICAN BUTTERFLIES MAINLY RELATING TO CLASSIFICATION AND NOMENCLATURE.

PART 2. NYMPHALIDÆ, ETC.

(Continued from Vol. XIX, p. 204)

SUBFAMILY NYMPHALINÆ.

Genus ARGYNNIS Fabricius.

The "Tentamen-name" *Dryas*, substituted in error for *Argynnis* by some authors in recent years, must be discarded. Leaving out of sight the fact that the International Commission on Zoölogical Nomenclature has very properly decided that the "Tentamen" of Hübner was not published as a "zoölogical record," it is well known to all students, who have taken the pains to investigate the subject with care, that Hübner did not use the terms proposed by him in his circular letter of inquiry, sent out under the above name, in a generic sense, but as the name of a higher group, which he called a "Stirps." The name "*Dryas*" used in a generic sense cannot be attributed to Hübner, but must be attributed to Tutt, Barnes & Benjamin, and their followers. It is a pure synonym for *Argynnis*.

I. *Argynnis electa* Edwards.

On the occasion of a visit, which Dr. J. H. McDunnough, then associated with Dr. William Barnes of Decatur, Ill., paid to the Carnegie Museum a number of years ago, he detected in the long series of specimens labelled "*electa*" by Edwards a couple of dark specimens, identical with *A. cornelia*, the series of which was located in the same drawer. Subsequently he wrote (Contrib. Nat. Hist. N. A. Lep., Vol. III, No. 1, p. 75) as follows:

"A. ELECTA Edw.

This species was described from 12 ♂ 4 ♀, some taken in N. Colo. by Mead in 1871, others in S. Colo. by Morrison in 1877; it is evident by the description that the specimens showed considerable variation and a recent examination of the series in the Edwards' Collection has confirmed our suspicion that several forms at least (if not species) were included under the one name. A ♂ in the series labelled 'Colo. Mead, 71' is marked type and as the label clearly

shows it must have been one of the type lot we consider that it would be advisable to restrict the name to this specimen. The type of *cornelia* Edw. from Ouray, Colo., proves to be absolutely identical with the type of *electa* [when thus restricted by McDunnough, W. J. H.] and *cornelia* will therefore sink as a synonym. The species is well illustrated by Holland (Butt. Book, Pl. XI, fig. 8); we do not know what his figure of so-called *electa* (*l.c.* Pl. X, fig. 8) represents; it looks more like a *lais* or *aphrodite* form."

I have always regretted that on the occasion of his unheralded and hurried visit I had only a few moments in which to converse with Dr. McDunnough. Had we had time to compare with each other, he might have been led to different conclusions than some of those, which he reached. He seems to have entirely disregarded the fact that in the great suite of specimens labelled "*electa*" by Edwards there were numerous specimens labelled exactly in the same way as the specimen which he selected and "restricted" as the type, ticketed "Colo. Mead, '71, type," as well as some ticketed "So. Colo., Morrison, '77, type." In fact the original specimens upon which Edwards based his description are all in the collection together with many others collected by Mead, which Edwards had returned to his son-in-law, the collector, labelled by Edwards in his well-known handwriting "*electa*." These are all of the form, which Barnes & McDunnough say "we do not know." If Dr. McDunnough had looked a little more closely he would have found the identical specimen figured in The Butterfly Book, Pl. X, fig. 8, bearing in Edwards' handwriting the label "*electa* ♂, Morr. So. Colo." and across it written by the same hand in red ink the word "type." This specimen also carries a printed label reading as follows: "Butt. Book, Pl. X, fig. 8." I am sorry I did not have an opportunity to explain to Dr. McDunnough all about these things, but my time was taken up by pressing duties and he was left to the care of one of my valued assistants, who really only in a most general way had knowledge of the collection. The "so-called *electa*" figured on Plate X of The Butterfly Book, which Barnes and McDunnough say "we do not know," is that one of Edwards' original types, which, when I wrote the book, I decided agreed most closely with the original description, and represents the vast majority of Edwards' really long suite of *A. electa*. The specimen designated or "restricted" by Dr. McDunnough as the "type" of *electa* is one of three stray specimens of *A. cornelia*, which Edwards had mixed up with his long suite of *electa*, and later, when he described *A. cornelia*, had inadvertently failed to

remove to their proper place. I have since remedied the matter and have transferred these three specimens of *A. cornelia*, including the specimen which Dr. McDunnough arbitrarily "restricted" as the type of *electa*, to their proper place in the set of *A. cornelia*, where they belong, leaving the original labels intact, but affixing my own label, designating them as *A. cornelia*.

To cut a long story short: "the so-called *electa*," which Barnes and McDunnough (*l.c.*) say "we do not know," is represented in The Butterfly Book by the true type of that species, which is exactly matched by twenty-three other specimens, all bearing the name "electa" in the handwriting of W. H. Edwards, *A. electa* is a valid species, as species go in the genus *Argynnis*, and is not identical with *A. cornelia*, Dr. McDunnough to the contrary notwithstanding. This is one of numerous cases in which the so-called "fixation of a type" has left things "in a fix." *A. electa* is a member of the "*Lais*-group" of North American *Argynnis*ids.

2. *Argynnis coronis* Edwards.

There is another case in the Genus *Argynnis* in which in the light of facts and with all the evidence before me I am compelled to differ from the finding of Messrs. Barnes and McDunnough. This is the case of *A. coronis* Edwards (Behr *in lit.*).

This species was originally described by Dr. Behr as "*Argynnis* No. 2" in a paper read by him before the Lyceum of Natural History of San Francisco, and published in the Proceedings of the Cal. Acad. Nat. Sci., Vol. II, 1862, p. 173. In this paper Behr designated eight species of *Argynnis* by numerals, without applying specific names. In a paper published the next year Behr applied specific names to seven of the eight species, and still left "No. 2" without a specific name. W. H. Edwards wrote to Behr suggesting that the specific name *coronis* should be given to "No. 2." Behr wrote to Edwards assenting to the proposal. Meanwhile Behr had sent to W. H. Edwards colored drawings of the eight species which he had originally designated by numbers and not by names. From these drawings Edwards informs us he was able to ascertain the identity of the eight species, including "No. 2."

In 1864 W. H. Edwards published in the Proceedings of the Entomological Society of Philadelphia, Vol. III, pp. 434-436, a paper entitled "Notes on the *Argynnis*ides of California," in which he reprints

Behr's original diagnoses and cites the second of Behr's species as follows: "No. 2. *Argynnis Córónis* Behr *in lit.*"

Under the well-known rule which governs all such cases, the specific designation *coronis* must be attributed to Edwards, as he was the first to publish it.

Edwards took all pains to correctly identify Behr's "No. 2" which he named *coronis*, and was assisted in this work by Dr. Behr himself. Until quite recently no one has questioned the identity of *coronis* Edwards (Behr MS.).

Strecker in his "Butterflies and Moths of North America, etc." 1878, p. 112, listed the species as follows:

"202. *Córónis*, Behr, Proc. Cal. Acad. Nat. Sc., II, p. 173, n.2, (1858-1862); W. H. Edwds., Proc. Ent. Soc., Phil., III, p. 435, (1864); Kirby, Cat., p. 158, (1871); Scud., Buff. Bull., II, p. 260, (1875).

Arg. Juba, *Bdl.*, Lep. Cal., p. 60, (1869)."

Strecker in his work indicates that the species is in his collection. *A. liliana* Hy. Edw., which he lists immediately before *A. coronis* as No. 201, he designates by a dagger (†) as "unknown to him in nature," and by an asterisk (*) as "wanting in his collection." He does not prefix a double dagger (‡), indicating his possession of the author's types, to the species *coronis*, nor to any other species named by Behr, although in 1900 in his "Supplement No. III" to his "Lepidoptera Rhopaloceres and Heteroceres," p. 22, he tells us that in 1876, two years before he published his "Synonymic Catalogue," he had received from Dr. Behr "all of his Argynnides." In 1878 Strecker appears to have been unconscious of having received Behr's types. In 1900 Strecker claims the possession of some of them received in 1876. This is a point worth remembering, since Strecker on the first page of his Catalogue (1878) says that 'all species, the types of which he possesses, have a double dagger prefixed to the name.'

In 1916, forty-two years after Edwards with the assistance of Dr. Behr had established the identity of Behr's "Argynnis No. 2" = *A. coronis* Edwards, and the species had been beautifully figured by Edwards in his Butterflies of North America, Vol. III, Pt. 2, April, 1887, and figures of his designated "types" had been reproduced by color-photography by the writer in The Butterfly Book, Pl. XI, figs. 10 and 11, comes our friend, Dr. J. H. McDunnough, printing the

following in *Contributions to the Nat. Hist. Lep. N. A.*, Vol. III, No. 2, Decatur, Ill., Dec. 5, 1916:

"A. CORONIS Behr.

In the Strecker Collection is a pair purporting to be the type of this species and regarding these and other *Argynnis* types of Behr's describing Strecker states (Lep. Rhop. Het. Suppl. 3, p. 22) that they were sent him by Dr. Behr in 1876 along with other typical examples with a letter saying 'I send you *all* my *Argynnides* in their doubtful state and with your better collections and literature you can do far more than I with my limited opportunities.' Under these circumstances we see no adequate reason why we should not accept these specimens as the types. Edwards first applied the name *coronis* Behr with Dr. Behr's consent to the species 'No. 2' of Behr's paper in Proc. Cal. Acad. Sci. II, 173, 1862 (Proc. Ent. Soc. Phil., III, 435); the species figured by Edwards as *coronis* in Butt. N. Am. III, *Argynnis* IV was determined as such by him from a colored figure received from Dr. Behr and this conception of the species has evidently been generally accepted since then.

We have examined the Strecker types extremely carefully, comparing them with a long series of specimens and find them absolutely identical with the species known as *liliana* Hy. Edw. and *not* the same as the species figured by Edwards. One of the main points of distinction is the *narrowness* of the yellow subterminal area on the underside of the secondaries which in Edwards' figures is relatively broad. Dr. Behr in the original description states that the species is very similar to *callippe* Bdv. but actually differs in the lack of the pale markings of the upper side and this statement is perfectly true as *callippe* possesses the same narrow band on the underside as does *coronis* (*liliana*), which is additional proof that the Strecker 'types' are more to be relied upon than Edwards' determination from a figure. The species is said by Dr. Behr to frequent several localities near the bay of San Francisco and this would therefore be in the same general region as the type locality of *liliana* Hy. Edw., which is St. Helena, Napa Co."

From the conclusion reached by Dr. McDunnough I thoroughly dissent. Behr's original type, if it had any label, was labelled "No. 2." That Behr divested himself of all his *Argynnids*, including the types, is extremely doubtful. He left his collection containing many *Argynnids* to the California Academy of Sciences, in the possession of which it was at the time of the San Francisco earthquake and fire, when it unfortunately was destroyed. The specimens in the Strecker collection are said by Dr. McDunnough to be "a pair purporting to be the types." That they are Behr's types is to my mind to the last degree questionable. As I have pointed out, Strecker did not in 1878

cognize the existence in his collection of any of Behr's types, although in 1900 he said he had received them in 1876. Some of us who knew the old man most familiarly are aware that he had very little regard for the sanctity of labels. The identity of *Argynnis coronis* was fixed by W. H. Edwards with care and with the assistance and approval of Dr. Behr himself, who did not dissent, as he might well have done, from the work of his friend and fellow-laborer Edwards, had Edwards made an error. The first describer of "Argynnis No. 2" and W. H. Edwards, who gave the name *coronis* to the species, were in full accord. Nobody for forty-two years questioned the identity of the species until Dr. McDunnough discovered the two specimens in the Strecker collection, which are very dubiously to be considered as the types of Behr's "No. 2," and certainly are not the types of *A. coronis* Edwards, which exist in the Edwards collection in the same condition in which they were when he wrote Vol. III of *The Butterflies of North America*, fully described them, designated them as the "types," and published their figures. The synonymy originally given by Herman Strecker in 1878 I think holds good today, and I adhere to Edwards and Strecker in the premises, as have all other authors, except those of the "Decatur School," Messrs. Barnes and McDunnough and their followers.

The identity of *A. juba* Boisduval with *A. coronis* Edwards is absolutely proved, as was pointed out by Edwards, by the type of *juba*, which Boisduval in great kindness himself sent to Edwards, and which is still preserved in the Edwards Collection marked by Boisduval in his own handwriting as "type." *Juba* was published in 1869, whereas the name *coronis* was published in 1864 and therefore has absolute priority.

Genus MELITÆA.

The genus *Melitæa* was erected by Fabricius (Illiger's Magazine, VI, 1807, p. 284). He included in the genus as species *lucina* (a Riodinid, since removed), *didyma*, *cynthia*, and *maturna*. Scudder following the Merton Rules designated *didyma* as the type of *Melitæa* Fabricius, but made the statement that "the name . . . falls because preoccupied through *Melitea* (Pér.-Les., Acal., 1809)." An examination of the work of Péron and Lesueur shows that it did not appear until 1809, the date correctly given by Scudder himself. The name is used for Acalephs by Lamouroux and subsequent authors as *Melite*.

According to Scudder's own statement and the dates he gives, *Melitæa* has precedence in time over *Melitæa* (or *Melite*), and the name, therefore, is not "preoccupied," Scudder to the contrary notwithstanding. He having erroneously accepted Hübner's "Tentamen" as a zoölogical record and misconstrued it, and further led astray by his own oversight as to dates, proposed the "Stirps-name" *Lemonias* of Hübner to replace *Melitæa*. Some compilers of check-lists have followed him in his error. Hübner in his "Verzeichniss," p. 29 (1816?) erected the genus *Cinclidia* under which he lists as species *phæbe* Schiff., *athalia* Esper, and *orthia* = *dictynna* Esper. But these species listed under *Cinclidia* by Hübner are strictly congeneric with the species listed by him under *Melitæa*. *Cinclidia* is a pure synonym of *Melitæa*.

In 1872 Scudder erected the genus *Euphydryas* with *phaëton* Drury as the type. The first species named by Hübner under *Melitæa* is *phaëton* coupled with *maturna* Linn., *cynthia*, and *artemis* D.S. = *aurinia* Rott., the latter name having priority. The species listed by Hübner in the "Verzeichniss" under *Melitæa* are strictly congeneric with *Euphydryas* Scudder. *Euphydryas*, like *Cinclidia*, is a pure synonym of *Melitæa*. If *Euphydryas* were accepted as valid, nearly all palearctic species would come under it, and great confusion would follow. At best under the most charitable construction, *Euphydryas* and *Cinclidia* have only subgeneric or "group" value.

Genus ANTHANASSA Scudder.

The genus *Anthanassa* was erected by Scudder (Bull. Buff. Soc. Nat. Sci., Vol. II, 1875, p. 268) with *Eresia cincta* Edwards as the type. The original types of *Eresia cincta* Edw. have unaccountably disappeared from the W. H. Edwards Collection and are not in my possession today. Who stole them I do not know.

The genus *Anthanassa* is founded upon rather trivial characters, mainly the outline of the wings. It is not recognized, or is merely alluded to, by recent revisers of the great group of which the species included in it form a part. At best it is a subgenus of *Phyciodes*, covering a group most of which are found in Central America and southward.

Genus POLYGONIA Hübner.

The substitution of the generic name *Polygonia* Hübner for *Grapta*

Kirby, which has become an accepted usage in recent years, seems to be justifiable.

Genus *AGLAIS* Dalman.

The use of the generic name *Aglais* Dalman for the group of species with *urticæ* as type, including such species as *l-album* (Esper) of Europe, *j-album* (Bdv. & Lec.), *californica* (Bdv.), *milberti* (Godart), and *antiopa* (Linnæus), is apparently justifiable. The application of the generic name *Hamadryas* to this group, *Hamadryas* being a "Tentamen-name," by Barnes and Benjamin is an error. *Hamadryas* Boisduval is the generic name which is properly applied to a group of Indomalayan insects, closely related to the Ithomiids of the new world. *Tellervo* Kirby is a synonym of *Hamadryas* Boisd.

Genus *VANESSA* Fabricius.

The type of the genus *Vanessa* Fabricius is indisputably the species *atalanta* (L.), the genus having been erected by Fabricius in 1807 and Latreille in 1810 having designated *atalanta* as the type. The species *cardui*, as stated by Scudder, is absolutely congeneric with *atalanta* and is so recognized by Lindsey. *Pyrameis* of Hübner sinks as a synonym of *Vanessa*. The facts were definitely and correctly stated by Scudder in his *Historic Sketch of Generic Names*, 1875. Lindsey speaks of "Scudder's peculiar reasoning" in this case. I see nothing but "plain common sense" in Scudder's reasoning.

Genus *CYNTHIA* Fabricius.

The substitution by Barnes and Lindsey, and Barnes and Benjamin of the generic name *Cynthia* for *Vanessa* is most unfortunate. The argument in defence of this procedure, which can only be based upon the action of Stephens in 1827 and of Horsfield in 1828 has no weight whatever. Stephens in his *Illustrations of British Entomology* in 1827 restricted *Cynthia* to *cardui*; Horsfield in his *Descriptive Catalogue of the Lepidoptera in the Museum of the British East India Company*, 1829, on one of his Plates prints the name *Cynthia cardui*. The action of Stephens and of Horsfield, long after the fixation of the type of the genus *Vanessa* by Latreille, must be disregarded, as pointed out by Scudder. Horsfield and Moore in their later and complete Catalogue (bearing the same title as the incomplete work above cited) and published in 1857 place the species *cardui* in the genus *Pyrameis*, and use *Cynthia* for *arsinoë* and its congeners. The type

of the genus *Cynthia*, as all students of oriental lepidoptera well know, is *arsinoë*, as stated by Scudder. In 1833, nearly one hundred years ago, Erichson (Nova Acta, Ac. Nat. Cur., XVI, Suppl. Pl. L, figs. 2, 2a) described under *Cynthia* a species which he named *deione*, strictly congeneric with Cramer's *arsinoë* figured by him in 1779. Since 1833 all lepidopterists have recognized *Cynthia* as the generic name properly applied to the oriental insects *arsinoë*, *deione*, etc. To have the generic name of this well known and huge Asiatic butterfly suddenly appearing in our lists as the generic designation of our common Thistle Butterfly is startling, to say the least, to a lepidopterist who knows the butterflies of the world. Its employment in this manner is a positive and most singular error.

Genus ATHENA Hübner (1818).

(Type, *Papilio thetys* Fabr. = *Papilio petreus* Cramer).

Synonyms: *Tymetes* Boisd. (*Timetes* auct.) 1836, type *merops* Boisd., *Megalura* Blanchard, 1840, type *coresia* (Godart).

What is the correct generic name of the Dagger-wings? In common with many other authors I assigned them to *Timetes* in the first edition of The Butterfly Book. By Seitz they have all been classified under the generic name *Megalura*. Some authors make a distinction between species belonging to the *Coresia*-group and those belonging to the *Petreus*-group.

A careful investigation leads me to the conclusion that the proper name to apply to the whole complex is *Athena* Hübner. There is no structural difference between the butterflies of the *Coresia*-group and the *Petreus*-group, except that in the latter the hind wings have the inner tail near the end of vein two, a little longer than in the *Coresia*-group. Genera founded upon such slight distinctions as this are certainly unnecessary refinements.

It is quite evident that Hübner's name *Athena*, type *Thetys* (Fabr.) = *Petreus* (Cram.) has priority in time over both *Tymetes* (*Timetes*) of Boisduval and *Megalura* of Blanchard.

Genus ASTEROCAMPA Röber (1916).

Synonym: *Celliphaga* Barnes and Lindsey (1922).

(The Hackberry Butterflies)

The North American species belonging to this group have been shifted about from one genus to another for years, having been as-

signed now to the genus *Apatura*, now to *Chlorippe*, and strangely enough to *Doxocopa*. The latter genus, the type of which, according to Scudder, is the species *polyxena (epilais)* would then be equivalent to the genus *Charaxes*, with which these things have absolutely nothing to do. Röber claims that the type of *Doxocopa* is *erminea*, an oriental insect, selected by others as the type of the oriental genus *Apaturina*. I recognize the fitness of the generic name *Celtiphaga*, proposed by Barnes and Lindsey, but unfortunately the name *Asterocampa* Röber has priority and must replace it. In reality the distinctions between *Apatura*, *Chlorippe*, and *Asterocampa* are not very great, founded upon the shape of the hind wings in the males, distinctions in the style of coloration, and doubtful genitalic differences alleged by Fruhstorfer to exist. The North American species, including the Central American species, *argus* Bates, form a group which does not show much of the iridescent blue and purple of the European species of *Apatura*, and the even more brilliant iridescence of the American species, which have been herded by authors in the genus *Chlorippe*, to which I assigned these insects in the first edition of The Butterfly Book. In the forthcoming second edition I shall follow Röber, and employ the generic name *Asterocampa*, of which *Celtiphaga* Barnes and Lindsey is, I am sorry to say, a synonym.

Genus HISTORIS Hübner.

(Type *Papilio odius* Fabricius).

Synonym: AGANISTHOS Boisduval and Leconte.

Hübner included in his genus *Historis* two species, *Papilio odius* Fabr. and *Papilio marthesius* Cramer.* The latter is a true *Siderone*. Its removal leaves *odius* as the type of *Historis*, which has priority over *Aganisthos* Boisduval and Leconte.

**Papilio marthesius* Cramer has been and still remains a great rarity in collections. The figure given by Cramer is an excellent representation both of the upper and the under sides of this magnificent insect, and is only defective in that it does not show the short tail at the end of the anal angle, having evidently been drawn from a specimen defective in this respect. Cramer figures a female from Surinam. We have a female from Kartabo, British Guiana, which exactly matches Cramer's figure, so far as the latter goes; and a female from Bolivia, collected by Steinbach, bearing the note "*am höchsten selten.*" These two females are tailed and are orange reddish on the light spots of the upper surface, as shown in Cramer's figure. We have another female taken at S. Paulo de Olivença, Brazil, by Klages, together with males, which on the under side agree with Cramer's figure, but upon

Barnes and Benjamin in their "List of Diurnal Lepidoptera, &c." star *Historis odia* (Fabr.) thus querying its occurrence in the United States. Boisduval and Leconte, p. 196, cite it as from "la Florida." It has not often been taken there, but some years ago one of my correspondents living at Miami, sent me by mail a small box containing a chrysalis. Upon the arrival of the box the butterfly had already emerged from the chrysalis, and I discovered a badly crippled specimen of *H. odia*. That is proof positive that Boisduval was not in error.

Genus COEA Hübner.

Barnes and Benjamin in their Check-list place *C. acharonta* Fabricius in the genus *Historis* (type *odius*) (*recte odia*). The two insects are so unlike in structure that this procedure cannot be justified. The insect is starred by Barnes and Benjamin, thus questioning its occurrence in our fauna. I confess I have seen no specimens, which I can be sure were caught within the United States, but it may occur as a straggler on our southern border. It is common in the Antilles.

Genus SMYRNA Geyer.

Smyrna karwinskii Geyer.

The occurrence of this common neotropical species in the United States is queried by Barnes and Benjamin. They may be right, but it has long been listed as found in this country. Its occurrence in Texas, or even in Florida, is not improbable, though I have no specimens which I can affirm came from these states. It does occur just across the Rio Grande, and is quite common in Mexico.

SUBFAMILY SATYRINAE.

In the genus *Neonympha* (= *Euptychia*) Barnes and Benjamin adopt the specific name *areolatus* Smith and Abbott, prefixing a double

the upper side have the ground-color brilliant crimson. This is plainly a dimorphic form.

The males which we associate with these females, are the insect, which is figured by Seitz (Gross-Schmett., Amer. Tagfalt., Pl. 116, b) as *S. mars* Bates. The synonymy of the species is as follows:

Siderone marthesia (Cramer)

♀. *Papilio marthesius* Cramer, Pap. Exot., II, Pl. 191, ff. A, B (1779) *Type*.

♀. *Nymphalis marthesius* Godart, Enc. Méthod., IX, 1823, p. 371.

♀. *Siderone marthesia* Bates, Proc. Ent. Soc. Lond., 1865, p. 343.

♂. *Siderone mars* Bates, Proc. Ent. Soc. Lond., 1860, p. 112; Röber, in Seitz, Gross-Schmett., Amer. Tagfalt., p. 478, Pl. 116, b.

dagger before *phocion* Fabricius as an "unavailable name." This I maintain is an error. Fabricius used the specific name *phocion* in the genus *Papilio* under the subdivision "*Satyri*," publishing the name in the *Entomologia Systematica*, Vol. III, Pt. 1, p. 218, in 1793. It was not until 1797 that Smith and Abbott published the same species under the name *areolatus*. The fact that Fabricius in the *Species Insectorum*, Pt. 2, p. 138, No. 642, 1781, under the "*Plebeji urbicolæ*" had designated a species by the name *phocion* does not make the Satyrid *phocion* a homonym of the African *phocion*, which Fabricius in the *Entomologia Systematica*, Vol. III, Pt. 1, p. 354, distinctly locates in *Hesperia*. The designation by the same specific name of a Satyrid from North America and a Hesperid from Africa does not convert *phocion* the Satyrid, into a homonym of *phocion*, the Hesperid. Fabricius placed the two forms in quite different groups. All butterflies were named *Papilio* in those days, as is well known, but the designation of the American insect as a Satyrid before Smith and Abbot published gives *phocion* as a specific name priority over *areolatus*. To deny the availability of the name to designate a Satyrid, because it had previously been used as the specific name of an Hesperid, is pushing matters to an unwarranted extreme in the judgment of the writer. I have numbers of both species in my cabinets, and never have been troubled by their having the same specific name. They are "miles apart" from the standpoint of a modern lepidopterist, as they were to Fabricius, who named them.

Genus OENEIS.

Oeneis semplei Holland, sp. nov.

♂. On the upper side there is a faintly indicated subapical ocellus, which does not occur in *semidea* (Say), to which this species is somewhat nearly related. On the under side the males have a superficial resemblance to the same sex of *Oe. semidea* (Say), but the white spots on the costal margin of the fore wing differ in their direction from those on the fore wing of *semidea*, which are inwardly oblique to the costa, while in *semplei* they are at right angles to the costa. Furthermore in *semplei* the black submarginal dark band which appears in *semidea* below the apex of the wing is entirely absent, and the clouded mark at the end of the cell is less diffuse in *semplei* than in *semidea*. On the under side of the hind wings of the male in

semplei the basal and median areas are lighter than in typical *semidea*, and the marginal dark spots are more pronounced and regular.

♀. The female is lighter in color on the upper side than the male, with a faint fulvous tint. The subapical ocellus on the fore wing is well defined in this sex, and a less definitely marked ocellus appears on the hind wing below the end of the cell. The wings on the under side are prevalently fulvous in their ground-color, and are thus quite different in their general appearance from the females of *Æ. semidea* (Say).

The types, males and one female, were collected in July 1926, by the John B. Semple Expedition of the Carnegie Museum, on the western coast of Labrador, at the point where the Little Cape Jones River discharges into Hudson Bay. I take pleasure in naming the species in honor of my friend, Mr. Semple, who accompanied the expedition, and who has so generously financed a number of our adventures into the far north.

***Æneis gibsoni* Holland, sp. nov.**

What I take to be the insect, the female of which is figured as a form of *semidea* (Say) by Gibson in *The Report of the Canadian Arctic Expedition*, Pl. II, fig. 7, is represented in my collection by a female and three males taken in the Kuskokwim Valley by Rev. Mr. Stecker some years ago. That the males must be associated with the female is beyond doubt, as the female was taken in consort with one of the males. The two sexes differ in that in the male there is a well defined dark mesial band, which in the female is very diffuse and not at all well defined. Figures of the male and female types will shortly appear on one of the plates of the Revised Edition of *The Butterfly Book*.

I name the insect in honor of Dr. Arthur Gibson, who has contributed much to our knowledge of the North American species of the genus *Æneis*.

Family RIODINIDÆ.

Genus CALEPHELIS Grote and Robinson.

My excellent friend, Dr. A. W. Lindsey, in the *Annals of the Entomological Society of America*, Vol. XV, 1922, p. 93, says:

"According to Opinion 14 of the International Rules, the type of this genus must be *caneus* Linn. as specified by Grote and Robin-

son, and not *virginiensis*, which they erroneously placed as a synonym of *cæneus*, and which has been cited as the type by later writers. We are unable to find any other described genus which is applicable, and would suggest the anagram LEPHELISCA, type *Erycina virginiensis* Guer. to take the place of *Calephelis* Auct."

With all due respect for the learning of my friend, I must register my dissent. The case dealt with in "Opinion 14," does not seem to me to be strictly analogous. In the second place there is not the slightest doubt as to the identity of the insects which Grote and Robinson intended to include in their genus *Calephelis*. It is true that recent researches have shown that the insect called *cæneus* by Linnæus belongs to the genus *Emesis*, and was erroneously applied to the species, which Grote and Robinson had before them, but the citations in the synonymy, which they give, leave it beyond a shadow of a doubt that they designated as the type of their genus the "Little Metal-mark," originally designated as *virginiensis* by Gray and Guérin-Méneville, then subsequently figured by Boisduval and Leconte as *Nymphidia pumila* (Lep. Ann. Sept., 1837, figs. 6, 7). This species, the identity of which is clearly established by the descriptions and figures which Grote and Robinson cite and the true name of which is *Calephelis virginiensis* (Gray) is what Grote and Robinson speak of as "our *cæneus*" (sic). At the time they wrote all writers and collectors had accepted the opinion that The Little Metal-mark of the southeastern United States should be known as "*cæneus* L." The species stood thus labelled in every list, and so ticketed in every cabinet. In 1898 I figured and wrote about this insect under this name in the first edition of The Butterfly Book.

The language used by Grote and Robinson in this connection is most explicit and decisive. After speaking at some length of the characteristics of what they, following Doubleday and Hewitson, called *cæneus* L., but identified as being the same as *virginiensis* Guer. and *pumila* Boisduv., and after pointing out the fact that the species, which they themselves had named *borealis*, was congeneric with what they called *cæneus*, they say: "For the group so characterized and of which our *cæneus* is typical, we propose the name *Calephelis*." Nothing could be clearer. They intended to erect a genus *Calephelis* for two strictly congeneric insects, one of them The Little Metal-mark, the other the Northern Metal-mark. The identity of the two species they intended to include in their new genus is not open to question. The fact that they erred in common with all the writers of their time,

in identifying *cæneus* (L.) as being the same as *virginiensis* Gray does not affect the matter.

I presume that Dr. Lindsey must have been in his work affected by the, to me at least, nomenclatorially heretical position announced by Dr. Barnes and F. H. Benjamin, who in the Introduction to their List of the Diurnal Lepidoptera of Boreal America, &c., say: "In one factor, however, we have deviated from most of the previous work, and that is in considering a *specific name rather than a specific organism as the genotype.*" (The italics are mine. W. J. H.). In other words the type of a genus is not an insect, which exists in nature, but a name which may have been correctly or incorrectly applied. But what is a name? It is a vocable applied to designate persons and things. The person or the thing intended is central in all study or discussion. The "specific organism," under whatever name it may have been designated, is the real thing, the identity of which must be ascertained in the nomenclatorial court. I am, as are all true zoölogists, with Abelard, a "Conceptualist," and hold that the terms of science are "concepts, which while existing in our minds, express real similarities in things themselves." In my philosophy as a naturalist, I am not a follower of Thomas Aquinas or Albertus Magnus. The word *logotype* has no place in my vocabulary. I protest against the novel attitude assumed in this matter by my excellent friend, Dr. Lindsey, and I am in thorough accord with Dr. Stichel, the latest and most careful revisionist of the *Riodinidæ*, who accepts *Calephelis* Grote and Robinson as the real name for a group of real things in nature clearly pointed out by Grote and Robinson. I am compelled by my convictions to reluctantly sink *Lephelisca*, the anagrammatic "alias" ingeniously invented by Lindsey, in the limbus of synonyms.

Family LYCÆNIDÆ.

I am in disagreement with the course pursued by Barnes and Lindsey in substituting the generic name *Lycæna* for *Chrysophanus*.

The generic name *Lycæna* was first applied in 1807 by Fabricius to a medley of forms, including "Hair-streaks," "Blues," and "Coppers."

In 1815 Oken in his *Lehrbuch*, Vol. I, p. 717, separated the "Hair-streaks" and the "Blues" from the "Coppers." As is correctly stated by Scudder in his *Historic Sketch of Generic Names*, Oken removed

from the genus *Lycæna* "the Coppers," the "Röthlinge," or "Dukat-enfalter," and included in this category the species *hippotoë*, *virgaureæ*, and *phlæas*. In his great work, *Allgemeine Naturgeschichte*, thirteen volumes of text, and folio atlas of one hundred and fifty-eight plates, he follows up his work begun in his *Lehrbuch* and gives, pp. 1389 *et seq.*, the same classification. The action of Oken, the greatest German naturalist of his day, the friend of Gœthe, Professor of Anatomy and Zoölogy in the Universities of Weimar, Jena, and Munich, is lightly dismissed by Barnes and Lindsey, who say: "If we follow the International Rules . . . Oken's action is not recognized as a valid restriction." Scudder (*l.c.* p. 209) did not thus lightly brush the work of the great German naturalist aside. Nor have others for many years. The subdivision of these butterflies into "the Hair-streaks," "the Blues," and "the Coppers" has continued from the days of Oken to the present time, with but few exceptions, through the whole literature of our science. It even antedates Oken and is well defined by Geoffroy and Denis & Schiffermueller.

But, setting the action of Oken to one side, it is incontrovertible that Dalman in 1816 set up the genus *Heodes*, definitely removing from the genus *Lycæna* Fabricius the species *virgaureæ* and *phlæas*. By Scudder *phlæas* was accepted as the type of the genus *Heodes*; Hemming on the basis of "page priority" says *virgaureæ* is the type. It makes no difference; both are "Coppers."

In 1818 Hübner in his "Zutræge" cites under the generic name *Chrysophanus* the two species *mopsus* Hbn. (= *titus* Fabr.) and *circe* Schiff. In his "Verzeichniss," 1822, he includes *circe* under *Chrysophanus* and transfers *mopsus* to the genus *Strymon* as not congeneric with *circe*. *Circe* Schiff. must therefore be recognized as the type of *Chrysophanus*. In the genus *Chrysophanus* Hübner lists the following species: *phlæas* (L.), *amphidamas* (Esper), *timeus* (Cram.), *helle* Hübner, *thersamon* (Esper), *xanthe* Hübner, *gordius* (Sulzer), *hyllus* (Cram.), *hipponoë* (Esper), *chryseis* (Schiff.), *eurybia* (Ochsenheimer), *euridice* (Hübner), *virgaureæ* (L.), *hippotoë* (L.), and *circe* (Schiff.). He eliminates *mopsus*, a "Hair-streak," from the complex.

The genus *Chrysophanus*, as thus constituted by Hübner, is a well defined group, the species of which are today regarded by the best authorities as congeneric. The species *phlæas* is the type of *Heodes* Dalman; *circe* Schiff., must be accepted as the genotype of *Chrysophanus* Hübner.

Probably unaware of these facts, or overlooking them, Curtis in his *British Entomology* (1824) designated *phlæas* as the type of *Lycæna*. But *phlæas* had been definitely removed from the genus *Lycæna* by Dalman and by Hübner. Curtis was in error, and Barnes and Lindsey are in error in following him, as are a few others, who might be named.

Unfortunately Capt. N. D. Riley is also in error (See *Journal Bombay Nat. Hist. Soc.* XXXVIII, pt. 2, 1922, p. 467) in designating *mopsus* Hübner as the type of *Chrysophanus*. Hübner kept *circe* Schiff. in *Chrysophanus* in 1822, but transposed *mopsus*, a "hair-streak" to *Strymon*, as already shown. Riley in 1922 cannot reverse the action taken by Hübner in 1822, a hundred years ago. Hübner had a perfect right to make the change.

It follows from the incontrovertible facts above set forth, that "the Coppers" having been removed from the heterogeneous assemblage of species set up by Fabricius under the name *Lycæna*, and the "Hair-streaks" having also been removed prior to 1822, one of "the Blues" must be accepted as the type of the Fabrician genus. Doubleday in 1847 uses the generic name *Lycæna*, restricting it to "the Blues," and cites under it the species listed by Fabricius, *meleager*, *argiades*, *arion*, and others. Westwood in 1852 employed it for "the Blues," and from that date forward, *i.e.* for seventy-eight years, almost all writers, until we come to a quite recent date, have so used the generic name *Lycæna*. Scudder designates *meleager* (Esper) (according to Kirby the same as *endymion* W. V.) as the type of *Lycæna*. Nobody has taken exception to this arrangement and usage until a few years ago.

Ever since Dalman in 1816 set up his genus *Heodes*, that is for one hundred and fourteen years, the species *phlæas* has been out of the genus *Lycæna* according to law. To now make it the type of *Lycæna* on the strength of the error of Curtis and utterly upset the usage, which has been followed by almost all European authors and, with but one or two exceptions, by all American authors is unfortunate. This is a case in which in my humble judgment "the Blues," the *Lycæninæ*, and "the Coppers," "*Chrysophaninæ*" may be left as they have stood for years. Why change the usage of practically a century? What good end is subserved by such a change? None whatever!

In the new edition of *The Butterfly Book* I shall adhere in this case to established usage, knowing that all students will understand the terminology I employ.

(To be continued)